



High thermal conductivity Low transmission loss Halogen-free Multi-layer circuit board materials

高熱伝導率・低伝送損失ハロゲンフリー多層基板材料

Laminate **R-5575**
Prepreg **R-5470**

Applications 用途

Power amplifier board(Base station for wireless communication, Small cell),
Antenna(Base station), Etc.

パワーアンプ基板(無線通信基地局、スモールセル)、
アンテナ(基地局)など



For miniaturizing PCBs and stable operation of "5G" small cell with Anti-aging effect, Multi-layer processability,
Low transmission loss, High thermal conductivity and Halogen-free.

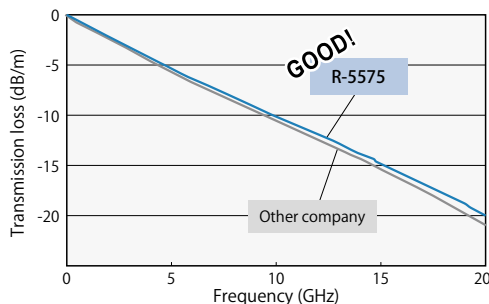
ハロゲンフリー、低伝送損失、高熱伝導性を兼ね備え、多層成型性で"5G"における基地局の小型化や安定稼働に貢献

Dk 3.6 Df 0.005
@10GHz

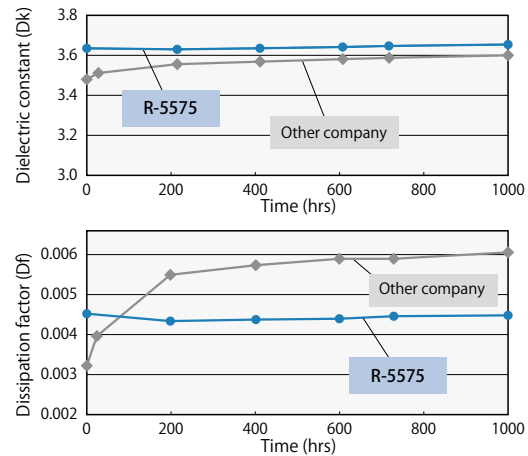
Thermal conductivity
0.60W/m·K

Tg (DMA)
245°C

Frequency dependence by Transmission loss 伝送損失比較

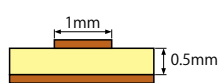


Long-term stability under High temperature (Dk, Df) 高温環境下における長期安定性 (Dk, Df)



Construction

Microstrip line



Item	R-5575	Other company
Line length	1000mm	1000mm
Impedance	50±1Ω	50±1Ω
Copper thickness	18μm→ +20μm plating	18μm→ +20μm plating
Copper	RT	ST
Core	0.5mm	0.5mm

- Measurement method : Balanced type circular disk resonance method
- Aging Temperature : 125°C (without humidity control)
- Measurement frequency : 18GHz

General properties 一般特性

Item	Test method	Condition	Unit	Halogen-free R-5575	Other company	
Glass transition temp.(Tg)	DMA	A	°C	245	Tg less	
CTE z-axis	a1/a2	IPC-TM-650 2.4.24	ppm/°C	20/155	21/42	
T288(with copper)	IPC-TM-650 2.4.24.1	A	min	>120	>120	
Thermal conductivity	Laser flash	A	W/m·K	0.6	0.6	
Dielectric constant(Dk)	10GHz	Cavity resonance	C-24/23/50	-	3.6	
					3.5	
Dissipation factor(Df)					0.004	
Peel strength*	1oz(35μm)	IPC-TM-650 2.4.8	A	kN/m	0.80	0.58
Flammability	UL	A+E-168/70	-	94V-0(HF)	94V-0(Br)	

The sample thickness is 0.5mm.

* RT Copper

Our Halogen-free materials are based on JPCA-ES-01-2003 standard and others. 当社ハロゲンフリー材料は、JPCA-ES-01-2003などの定義によるものです。The above data are typical values and not guaranteed values. 上記データは当社測定による代表値であり、保証値ではありません。

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